

Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 44.

April, 1942.

No. 520.

J. FRANKLIN COLLINS

WALTER H. SNELL

(With Portrait)

Professor James Franklin Collins, taxonomist and forest pathologist, died in Providence (Cranston), Rhode Island on November 14, 1940, after a long illness.

Professor Collins was born December 29, 1863 in North Anson, Maine. He moved to Providence in 1873, where he was educated in the grade and high schools. From 1879 to 1898 he was employed by the nationally known Gorham Manufacturing Company as a silver worker, designer and embosser. In his spare time he became interested in identifying the plants which he came across in his rambles over the State, and it was not long before he sought the assistance of Professor W. Whitman Bailey, head of the Department of Botany at Brown University. Young Collins showed such interest and displayed such skill in this field that Professor Bailey took him under his wing and assisted him in obtaining a technical background for his avocational efforts and opened the University Herbarium to the full play of his talent. In 1894, while still working at his trade at Gorham's, he was rewarded with an appointment as Curator of the Olney Herbarium at Brown University. In 1898, the University awarded him an honorary Ph.B. degree. In 1899, he gave up his work as a silversmith at Gorham's to accept an appointment as instructor in Botany at Brown. He was made an assistant Professor in 1905 and upon Professor Bailey's retire-

ment in 1906 he became head of the Department, in which position he remained until 1911.

In 1907, this versatile man branched out into another field of Botany, which was to develop into the main work of his later life. From that date to 1911, while still teaching at Brown, he became successively Collaborator, Agent and Special Agent in the Office of Forest Pathology of the United States Department of Agriculture, working chiefly upon the chestnut-bark disease. Then in 1913, when the late Dr. Haven Metcalf opened up a branch laboratory of the Office of Forest Pathology at Brown University to deal with the diseases of ornamental trees and shrubs, Collins was made Forest Pathologist and placed in charge. He was subsequently appointed Pathologist and Senior Pathologist-in-Charge. He did not give up his interest in taxonomy at any time during this period, but still spent his spare time collecting plants and building up his own herbarium. He was the unofficial taxonomist for the Office of Forest Pathology and at various times in several pathological investigations was called upon to solve the taxonomic aspects of these problems. He continued to serve as Curator of the Olney Herbarium and was appointed Demonstrator and Lecturer in Botany, in which honorary positions he served until the time of his retirement from the Government service in 1933.

The functions of the Providence Office and Laboratory which Collins administered were in general two:—diagnosis of diseases of shade and ornamental trees and shrubs from specimens submitted by correspondents over the entire United States, and suggestions for control; investigations of such diseases as needed particular attention because of their novelty or imminent or possible danger. The first project came to be a very important one. From the modest number of 8 requests for diagnosis or information in 1913, the number grew to 1,000 in 1932. The more special sorts of projects included the following: chestnut-bark disease; white-pine blister-rust; diseases of camphor, rhododendrons, boxwood, roses and Lawson cypress; needle-blight of white pine; European larch canker; willow scab; *Rehmiellopsis* disease of firs; *Cytospora* and *Sphaeropsis* diseases of conifers.

The technical aspects of the work just mentioned were as-

signed for the most part to members of his staff. A third type of investigation was entirely Collins' own. He early applied his energies and his common sense to the problems of the care and treatment of shade trees and his substantial accomplishments along this line laid the foundations for the scientific care of shade trees and earned him the title of "Father of Tree Surgery". He was responsible for four improvements in the protection of ornamental trees:—1) scientific methods of trimming, etc., instead of the crude tree-butchnery too commonly practiced; 2) the open cavity, properly made; 3) a wood-filler for cavities instead of the inelastic cement; 4) a sawdust-asphalt mixture for a more flexible filling. He had the two latter cavity-fillers patented by the United States Department of Agriculture to make the methods available to the public. His Farmers' Bulletin number 1178 on "Tree Surgery" ran through 9 editions and revisions from 1920 to 1934, with a total of 210,000 copies, and Farmers' Bulletin number 1726, "Treatment and Care of Tree Wounds," five editions from 1934 to the present time, totalling 160,000 copies.

Collins was an expert on the higher plants, ferns and mosses. He was moderately well-informed about the fungi. He had an especially intimate knowledge of the natural history of Rhode Island. He knew every corner of the State, every crossroad, path and brook. He collected widely with other members of the New England Botanical Club, more especially in Maine and the Gaspé Peninsula. In the latter region he with his colleagues did a great deal of exploring of hitherto uncharted territory and because of his exploration of one mountain that peak now bears the name of "Mount Collins" and is so accepted by the Canadian Geological Survey. In his later work for the Government, he travelled considerably in this country to study trees and their diseases, the nation's forests and parks.

Collins' publications numbered over 100, with about a score each on the mosses and the chestnut-blight, and the others on ferns, local floras and miscellaneous higher plants. Outside of his "Tree Surgery" Bulletin, his best known work was "Key to New England Trees, Wild and Cultivated", with Howard W. Preston.

Collins was a member of the following organizations:—American Association for the Advancement of Science (Fellow),

American Forestry Association, American Phytopathological Society (Charter Member), Botanical Society of America, Josselyn Botanical Society of Maine (Chairman of Bryophyte Committee for 10 years), National Geographic Society, New England Botanical Club (Committee on Check List, 1901-1911), Rhode Island Botanical Club (one of founders and President several years), Rhode Island Field Naturalists Club (President 3 years, and member of Executive Committee 4 years), Rhode Island Horticultural Society (Botanist 4 years, on Lecture Committee 2 years), Sigma Xi, Brown University Chapter (Treasurer 2 years), Sullivant Moss Society, Torrey Botanical Club. From 1929 to 1936 Collins was an Associate Editor of *RHODORA*, freely giving his services in the preparation of illustrations.

Collins was a mechanical genius, typically Yankee. He was expert in the use of all kinds of tools and in the utilization of all kinds of materials, but the lack of complicated tools or of special materials was no obstacle to him. With the simplest of facilities, he could make unbelievable things. In the 5 and 10 cent store he could find small items which he could put to a dozen uses, cheap glassware that obviated the purchase of more expensive material from the supply houses. Neither was lack of physical space any hindrance or source of discouragement. He could make an office out of a pillbox and a laboratory out of a closet, by economically using every cubic inch of volume. Folding or sliding tables and benches, shelves on every available bit of wall space and even suspended from the ceiling, sets of drawers and cases ingeniously arranged provided working or storage space where both appeared impossible. A few black curtains pulled down from the ceiling and the proper array of folding benches slipped from their catches would provide a dark-room in the corner near the sink. Collins liked to tinker; if he was ever happier doing anything than collecting and caring for his plants, it was when he had tools in his hands. This propensity and Collins' unfailing good nature were often taken advantage of by his colleagues (including the writer). It was soon found that if he were asked outright to do some little job, he was somewhat reluctant to undertake it and did not know if he had the time. The proper mode of approach was to bring a plan or some ma-

terials or a little job partly done and ask him what was the best way of doing it or how it could be improved. Then Collins would inspect what was essentially the lure, look at it alternately over and through his half-lens glasses, make varied comments and suggestions, and always end by remarking that he was busy at the time, but that if the particular thing were left with him, he would see what he could do with it. Invariably in a brief spell, the job was completely and ingeniously finished.

In addition to being a skilled worker in most of the ordinary types of trades and an expert technician, Collins was an accomplished photographer, an artist in preparing and mounting herbarium specimens, and not unhandy with pen and pencil.

Personally, Collins was a delightful soul. He was quiet, modest, reserved, but very kindly and companionable. He was of even disposition, the kind that "wears well". He knew when to speak and when to listen. He possessed a humor that was twinkling rather than sparkling. He had a remarkable memory for names, places and facts. His sagacious and practical advice was always comforting as well as enlightening. He was abstemious and spartan in his own life, but nevertheless possessed a personal warmth that was often unsuspected. He was endowed with Yankee "horse-sense". He viewed life philosophically, and passed through his long, last illness with patience and courage, calmly awaiting the end which he foresaw ten years ago.

There passed a MAN, one of unquestioned ability, attainments and culture, who chose to avoid the swirl of complicated modern existence and to live as a quiet botanist.

BROWN UNIVERSITY.

Providence, Rhode Island.